them. Further evaluation is needed to determine the safety of long-term use.

GASTROINTESTINAL DISEASES/DISORDERS—*Economics Outcomes Presentations*

PGI3

IMPACT OF PROTON PUMP INHIBITOR UTILIZATION PATTERNS ON GASTROESOPHAGEAL REFLUX DISEASE-RELATED COSTS

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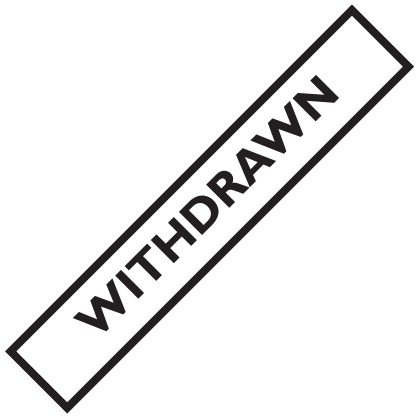
OBJECTIVE: To determine proton pump inhibitor (PPI) treatment patterns and their affect on gastroesophageal reflux disease-related costs.
METHODS: This study used claims data to identify continuously enrolled GERD-diagnosed subjects newly treated with a proton pump inhibitor (PPI) between October 1, 1999 and March 31, 2000. Data were analyzed for six months following PPI initiation. Results were stratified by first PPI filled during the study period. Compliance (measured by possession ratio), dosage escalation (>25% of initial dose), and daily average consumption (DACON) were measured. Subjects were assigned to one of four GERD severity groups based on ICD-9 diagnosis codes. Regression analysis was performed on GERD-related costs using treatment patterns and type of PPI drug as covariates of interest. Confounders including GERD severity were controlled for in the analysis.
RESULTS: Of 75,452 subjects, there were 51,232 (67.9%) lansoprazole, 22,829 (30.3%) omeprazole and 1,391 (1.8%) rabeprazole subjects. Possession ratio was not significantly different by drug. Only 3.5% of rabeprazole subjects escalated versus 5.5% of omeprazole subjects and 9.3% of lansoprazole subjects ($p = 0.0001$). Among subjects with esophageal ulcer or hiatal hernia, rabeprazole users had a significantly lower final DACON (1.03) versus both lansoprazole (1.20) and omeprazole subjects (1.22, $p = 0.0299$). From the regression models, subjects who were compliant with therapy (ratio ≥ 0.80) had 43% higher GERD-related pharmacy costs and 33% higher GERD-related total costs (both $p < 0.001$). GERD-related medical costs were not significantly affected by compliance. Subjects who filled lansoprazole had 9.4% higher GERD-related pharmacy costs versus rabeprazole subjects ($p < 0.01$). Omeprazole subjects had 12.5% higher GERD-related total costs versus rabeprazole subjects ($p < 0.01$), while lansoprazole subjects had 18% higher GERD-related total costs versus rabeprazole subjects ($p < .001$).
CONCLUSIONS: Rabeprazole subjects had lower GERD-related costs, less escalation and lower DACON compared to lansoprazole and omeprazole subjects. Compliance was not significantly different between drugs, nor did it decrease GERD-related costs.

PGI4



PGI5

COST-EFFECTIVENESS OF IV PPI'S IN THE TREATMENT OF NON-VARICEAL UPPER GI BLEEDING FOLLOWING URGENT ENDOSCOPY

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OBJECTIVES: Recent clinical studies report lower 30-day rebleeding rates associated with the use of intravenous proton pump inhibitors (IV PPIs) for treatment of

patients with ulcer bleeds exhibiting high risk stigmata at time of endoscopy. We assessed the cost-effectiveness of starting an IV infusion of pantoprazole (80-mg bolus followed by 8 mg/hr for 3 days) for high risk, non-variceal ulcer lesions after therapeutic endoscopy had been performed.
METHODS: A decision analysis was conducted by creating a decision tree model in Data 3.5. The assumptions of probabilities and costs were derived from the literature, a local cost database, and a national Registry of patients with Upper Gastrointestinal Bleeding undergoing Endoscopy (RUGBE). Efficacy was the proportion of patients with an episode of rebleeding. Both threshold and sensitivity analyses were conducted. The time horizon was 30 days following hospital admission.
RESULTS: It was estimated that hospitalization costs for patients with uncomplicated and complicated ulcer bleeds were respectively CDN$1546.08 and $3275.63 per patient. Over the range of probabilities covered by the 95% confidence interval assigned to the rebleeding rate, the optimal strategy was the use of IV PPI infusion versus non-use. The IV PPI strategy exhibited higher effectiveness (17% decrease in rebleeding) at lower cost ($67 less per hospitalized patient). The estimates were robust across a wide range of clinically relevant variables. Assumptions about hospitalization costs had the greatest effect on the decision to start/not start the IV PPI.
CONCLUSIONS: Based on the assumptions of our model, the most cost-effective approach is to start an IV PPI infusion for a patient with a high-risk ulcer bleed having undergone urgent endoscopic therapy.

PG16

EFFECT OF POSTOPERATIVE ILEUS ON LENGTH OF STAY IN COLECTOMY

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Colectomy is a common surgical procedure known to be associated with Postoperative Ileus (POI). POI leads to inhibited bowel function following surgical procedures and it delays discharge of hospital patients by affecting patient's tolerance to solid/liquid intake. Thus, POI can potentially extend length of stay (LOS) and increase hospital costs in colectomy patients.
OBJECTIVES: To evaluate impact of POI on LOS and determine factors that lead to POI in hospital patients undergoing colectomy.
METHODS: Adult patients who underwent colectomy, with/without POI were identified from cross-sectional 1999 National Hospital Discharge Survey (NHDS) using ICD-9-CM code for surgical procedures and diagnosis (457.1, 457.4 and 458). Hospital patients with cardiac, respiratory, or urinary comorbidities were excluded. Patient characteristics and LOS were compared between patients with/without POI using student's t-test. Patient characteristics affecting development of POI were evaluated using logistic regression. All analyses were conducted using SAS version 8.0. Data were weighted to obtain national estimates.
RESULTS: The mean LOS was 13.29 (+/– 8.74) vs. 7.49 (+/– 3.37) days in patients with/ without POI respectively. The LOS in patients with POI was significantly greater than those without POI ($p < 0.0001$) after re-scaling record weights. Patient characteristics of age, gender, race and primary payer were not significantly associated with development of POI.
CONCLUSIONS: POI leads to significant increase in LOS of patients who underwent colectomy. We suspect severity of illness and treatment characteristics to interact with POI. However, data on these variables were not available in the survey. Therefore, we could not detect a significant association of the factors, considered in this study, on POI. Future research would be needed to ascertain impact of severity of illness and treatment characteristics on POI.

PG17

ECONOMIC OUTCOMES OF EMPLOYER BENEFICIARIES TREATED FOR IRRITABLE BOWEL SYNDROME (IBS)

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OBJECTIVES: This study investigates the extent to which IBS imposes a financial burden on an employer.
METHODS: Administrative claims data from a national, Fortune 100 manufacturer that includes all medical, pharmaceutical, and disability claims for the company's employees, spouses, dependents, and retirees ($n > 100,000$) were used for this analysis. IBS patients ($n = 1,610$) were identified using ICD-9-CM codes of individuals aged 18 through 64 years, who received primary treatment for IBS; or secondary treatment for IBS and primary treatment for constipation or abdominal pain, between 1996 and 1998. Over 93% ($N = 1,509$) of these IBS patients were matched based on age, sex, zip code, and employment status to control beneficiaries. Excluded from both the IBS and control samples were patients treated for malignant neoplasm of digestive organ and peritoneum, inflammatory bowel disease, Crohn's disease, ulcerative colitis, and diverticulitis. Direct (medical and pharmaceutical) and indirect (disability and medically-related work absence) costs of IBS patients and controls were estimated using SAS, version 8.
RESULTS: On average, an IBS patient cost the employer $1,251 more than an employee not treated for IBS ($4,527 versus $3,276; $p < 0.0001$). Direct medical costs accounted for 83% of total costs associated with IBS. Hospital outpatient costs accounted for the largest portion; average hospital outpatient costs were $1,258 and $742 for IBS patients and controls, respectively ($p < 0.0001$). The average number of medical claims per